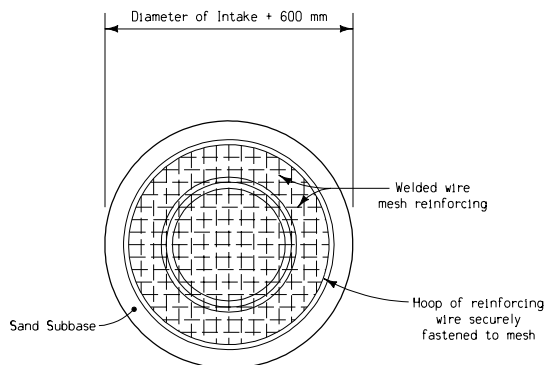
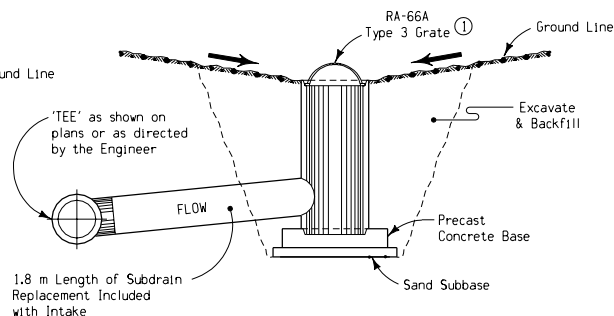


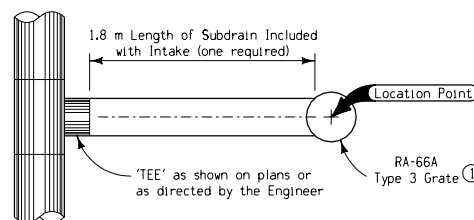
SECTION OF INTAKE



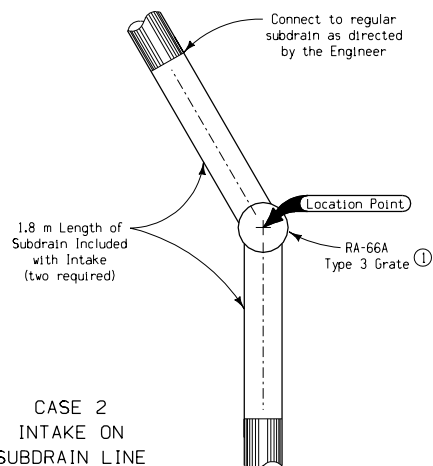
PLAN OF PRECAST CONCRETE BASE



TYPICAL INSTALLATION
EXCAVATION AND BACKFILL



CASE 1
INTAKE OFFSET FROM SUBDRAIN LINE



CASE 2
INTAKE ON
SUBDRAIN LINE

| OPEN DITCH INTAKE | | | |
|-------------------|------|------|--|
| | D1 ② | D2 ② | |
| Size A | 450 | 300 | |
| Size B | 600 | 450 | |

GENERAL NOTES:

This plan details the construction and installation of an open ditch intake for tile drains.

Materials and methods of construction shall be in accordance with current Standard and Supplemental Specifications.

Precast base shall be constructed using welded wire mesh reinforcing WWF 100 x 100 - W2.9, or equivalent. Groove portion of base shall be carefully constructed to ensure correct installation of intake well.

The well portion of the RA-63 Intake shall consist of 75D concrete pipe (refer to Standard Road Plan RF-1) modified as indicated hereon. Unless otherwise specified within detail project plans, the minimum depth of intake well shall be 1.2 meters. The intake may be constructed in lengths that will be convenient to transport and install. Opening may be formed when pipe is cast or may be cut out to desired elevation after pipe is complete. Opening shall be neatly shaped. Wire mesh may be left in place and cut to size when outlet pipe is installed. Subdrain pipe shall be smoothly grouted into opening.

Price bid for "RA-63 Intake" shall be full compensation for furnishing all materials and constructing intake as detailed hereon.

All requirements of current specifications for "Excavation for Structures" applicable to the necessary excavation and backfill for intakes shall apply to this work. Excavation and backfill will not be classified, measured or paid for separately but shall be considered incidental to and included with the price bid for the intakes. Excess material excavated for intakes shall be placed as directed by the Engineer.

When the RA-63 Intake is used in conjunction with installation of tile subdrain either one or two sections as required (See Case 1 or Case 2) of concrete culvert pipe or corrugated metal pipe of proper size shall be placed at the intake as shown. This is for the purpose of preventing seepage into the subdrain adjacent to the intake. This length shall be included with and considered incidental to price bid for intake.

① When intake is used in a location where adjacent surface area is paved, use a RA-66C Type 4 Grate.

② Nominal inside diameter.

All dimensions given in millimeters unless noted.

| | | |
|----------|---|---------------------------|
| M | Iowa Department of Transportation | |
| | Project Development Division | |
| | STANDARD ROAD PLAN | RA-63 |
| | REVISION: Change Inlet Elevation to Form Grade. APPROVED BY: <i>[Signature]</i> DESIGN METHODS ENGINEER 11-05-99 | |
| | REVISION NO. 2 | REVISION DATE 02-11-00 |

OPEN DITCH INTAKE
(BEEHIVE) FOR TILE DRAIN